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Revision of the Holarctic spider genus *Procerocymbium* Eskov 1989 (Araneae: Linyphiidae)

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Abstract — The linyphiid genus *Procerocymbium* Eskov 1989 and its type species *P. sibiricum* Eskov 1989 are redescribed and three new species are described: *P. jeniseicum* (♂♀, Middle Siberia), *P. buryaticum* (♀, Transbaikalia & South Yakutia) and *P. dondalei.* (♂, Yukon Territory). Relationships of the genus to some other erigonine genera are discussed.

Key words — Holarctic, Linyphiidae, new species, *Procerocymbium*, spiders

Introduction

During a survey of Siberian spiders we faced problems in the identification of *Procerocymbium* (Linyphiidae) females from Yakutia and Buryatia. Their epigynes did not look like the figures provided by Eskov (1989) and were slightly different from topotype specimens that we had on hand. This led us to the conclusion that the different populations might not be conspecific. The subsequent discovery of a male from Taimyr, which was distinctly different from the type species, *P. sibiricum*, confirmed this and established the necessity for this revision.

All drawings were made before SEM pictures were produced, therefore some outlines are different between the drawings and photographs, for example, lateral edges of flaps in drawings look shorter than the same in SEM photographs. Due to transparency of the suprategular apophysis, its lower margin was not depicted in Figs. 12 and 15.

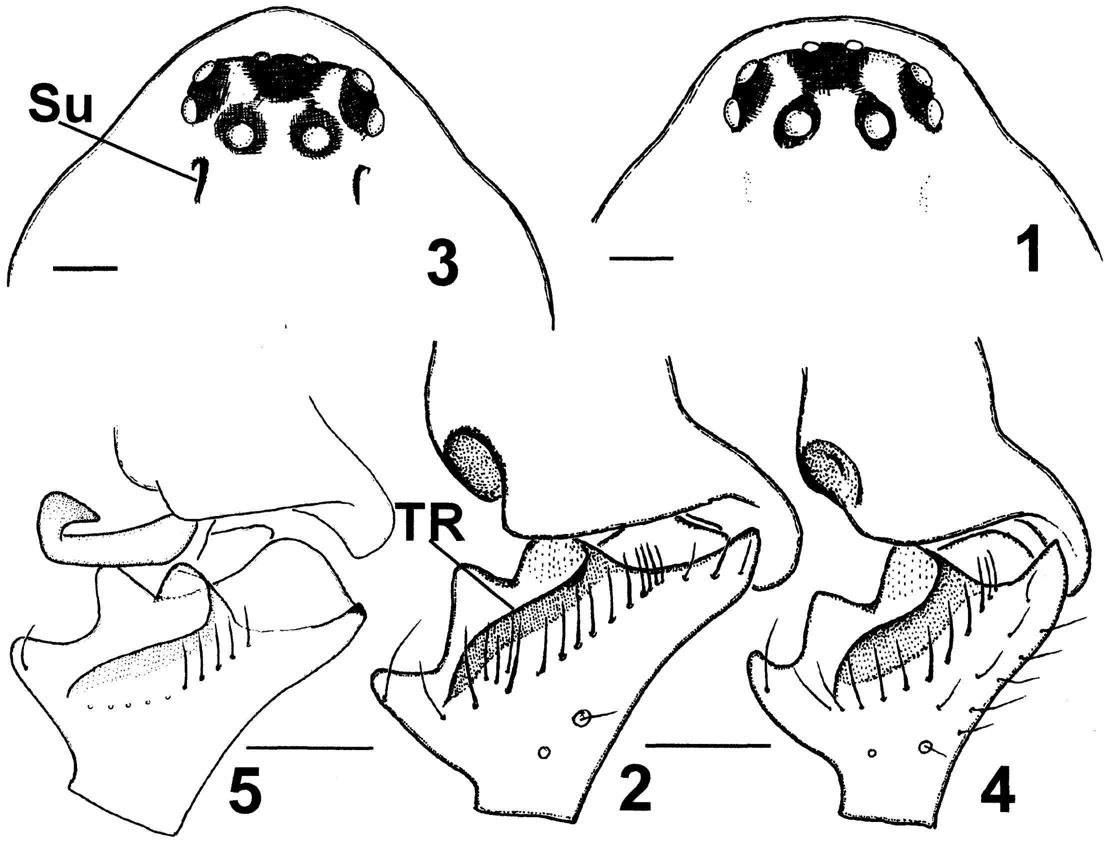
Abbreviations of museums are as follows: CNC- Canadian National Collections (Ottawa); IBPN - Intitute for Biological Problems of the North (Magadan); ZMMU - Zoological Museum of Moscow University; ZMUT - Zoological Museum, University of Turku. All material treated herein is shared between the above mentioned museums. All measurements in the descriptions are given in mm.

Procerocymbium Eskov 1989

Type species. *Procerocymbium sibiricus* Eskov 1989

Diagnosis. This genus can be easily distinguished from other related genera by the modification of cymbium, having prolateral outgrowth as well as by epigynal fissure surrounded with flaps sclerotized anteriorly in combination with distinct median plate.

Description. Small to medium-sized moderately dark colored erigonine spiders. Male carapace modified: cephalic part raised over thoracic part (Fig. 43) and may have sulci (Fig. 3). Chelicerae unmodified (Fig. 58). Tibial spines 1111, metatarsi I–IV with trichobothrium, TmI varies from 0.60 to 0.90. Tarsi I–II in males slightly swollen. Tarsal claw with 8–9 combs (Figs. 48–49).
Palp: Tibia with 3 trichobothria, bears one retrolateral ridge (Figs. 2, 4–5) and 5 apophyses: 3 prolaterally and 2 retrolaterally. Tibial ridge with one straight row (Figs. 4–5) of bristles or row can be accompanied with set of 3–4 bristles (Figs. 2, 34). Cymbium with basal outgrowths turned prolaterally (Figs. 6–11, 21, 35), basal third of cymbium with small rounded strongly sclerotized plate retrolaterally (Figs. 2, 4, 21). Ventral side of cymbial outgrowth with small furrows and fine denticles, corresponding tibial apophysis with denticles matching furrows. Paracymbium small, hook-like (Figs. 5, 21, 34). Embolus in part covered with tegulum at the



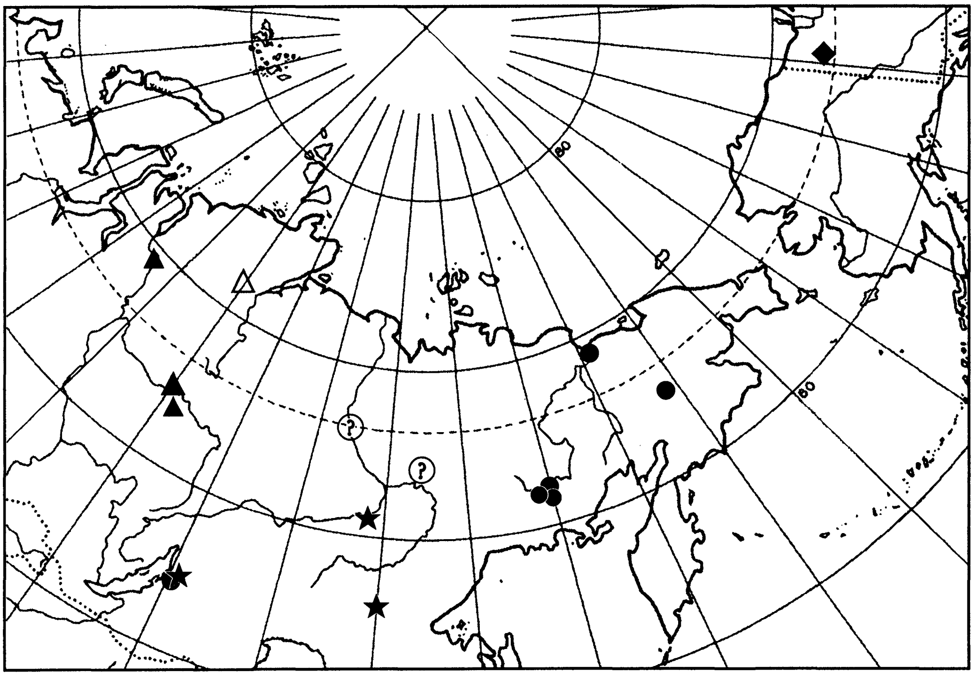
Figs. 1–5. Males of *Procerocymbium sibiricum* (1–2), *P. jeniseicum* sp. n., holotype (3–4) and *P. dondalei* sp. n., holotype (5) —1, 3, cephalic part of carapace, view from above; 2, 4 and 5, left palpal tibia and basal part of cymbium, retrolateral view. Scale: 0.1 mm. Abbreviations: Su - sulcus, TR - tibial ridge.

base (Figs. 12, 15, 36) turning retrolaterally. Embolic division large, bearing long apophysis (Figs. 12–19, 36, 37) its top strongly sclerotized, bill-like. Suprategular apophysis long, thin and transparent (Figs. 21, 34, 36–37), in light microscope it looks like a part of tegulum. Epigyne extends slightly over abdomen with large plate turned in epigastric fold (Figs. 26, 30, 32, 42, 44, 46). Epigyne with distinct fissure. Anterior part of fissure (flaps) strongly sclerotized (Figs. 20, 22, 24), posterior part of fissure (flaps) turning below plate. Anterior part of epigyne may have a peak like projection covering anterior part of fissure (Figs. 23, 52, 56).

Relationships. By the direction of embolus and embedding of its basal part *Procerocymbium* species resemble *Pocadicnemis pumila* (Blackwall 1841) (cf. Fig. 163 in Millidge 1977). Same direction of embolus can be found in *Drepanotylus borealis* (Holm 1945), *Gonatium paradoxum* (L. Koch 1869), *Abacoproeces saltuum* L. Koch 1872 and *Carorita limnaea* (Crosby & Bishop 1927) (cf. Figs. 10, 95, 98 and 158 respectively in Millidge 1977). The most similar palpal conformation is found in *Metopobactrus ascitus* (Kulczyński 1894) and *M. prominulus* (O. P.-Cambridge 1872) (cf. Fig. 90 and 89 respectively in Millidge 1977). As in *M. prominulus*, males of *Procerocymbium* have cephalic part elevated over the thoracic region. It seems that this genus is related to *Metopobactrus*. Female epigyne is unusual. By the shape of peculiar flaps sclerotized on the ends females of *Procerocymbium* resemble those of *Diplocephalus latifrons* (O.P.-Cambridge 1863) and *D. cristatus* (Blackwall 1833) (cf. Figs. 36d and 37a in Roberts 1987).

Judging from the conformation of the male palp, it is difficult to determine *Procerocymbium*'s closest relatives among erigonines, but it is related to those members of the *Pelecopsis* group of genera (*sensu* Millidge 1977) with modified embolic division (long embolus and strong apophysis) (*Trichoncus, Metopobactrus, Lasiargus, Gonatium, Kratochviliella*, etc.).

Habitats. All species, except *P. sibiricum*, were collected in boggy biotopes in lowlands. The type species was collected only in highlands (mountain tundra belt)



Map 1. Distribution of *Procerocymbium* species: ● *P. sibiricum;* ▲ *P. jeniseicum* sp. n.; ★ *P. buryaticum* sp. n.; ◆ *P. dondalei* sp. n., Question marks: unchecked records of *P. sibiricum.*

over 800 m in upper Kolyma within screes or on gravely slopes. A large series of this species from Kolyma river month was collected on warm and dry riverside slopes.

Distribution. Distribution of the genus ranges from Yenisei River (eastern bank) to the Eagle River (watershed between Yukon and Mackenzie River basins), and from eastern Taimyr to north Transbaikalia (Map 1).

Procerocymbium sibiricum Eskov 1989
(Figs. 1–2, 6–7, 12–14, 20, 25–28, 34–49, 58)

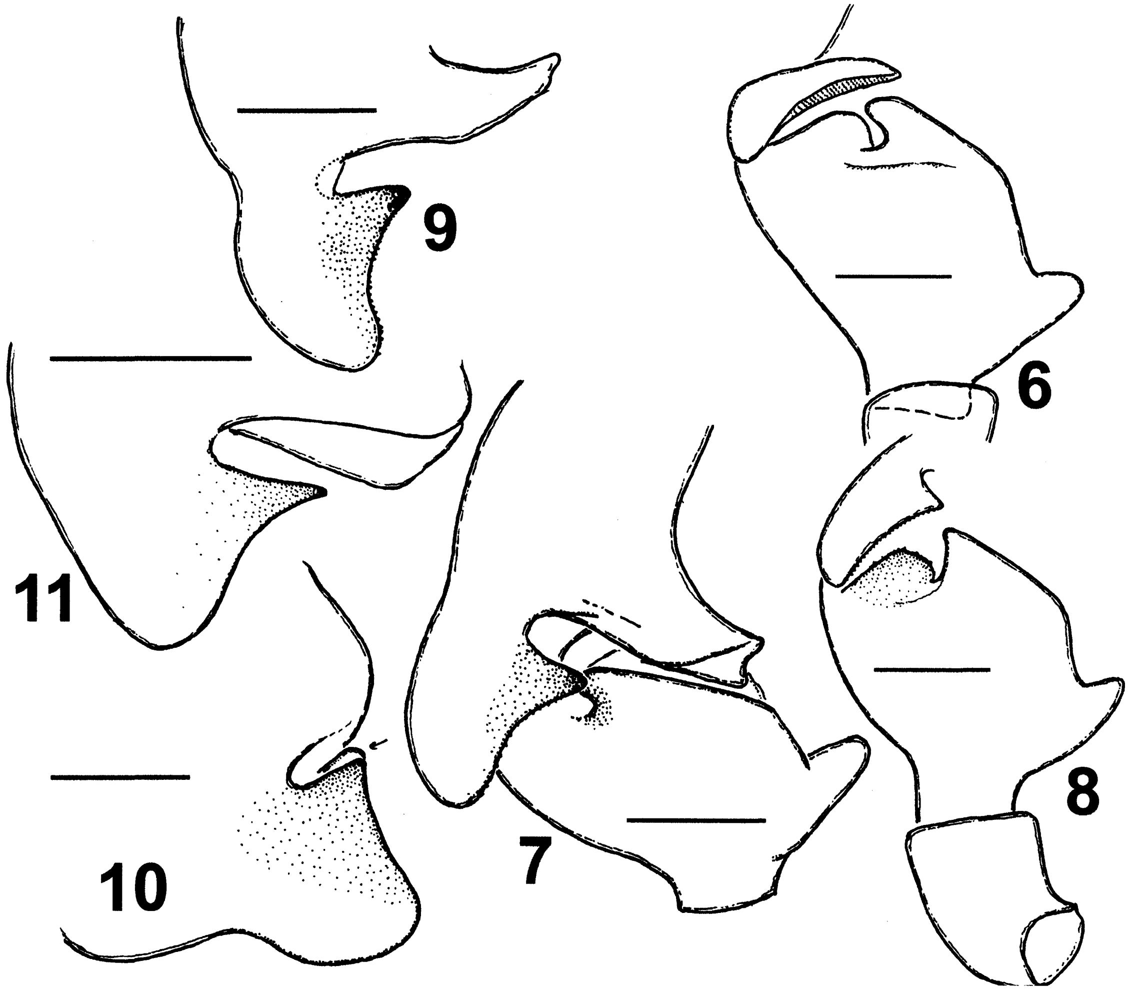
Procerocymbium sibiricus Eskov 1989, p. 76, fig. 6.1–6.
P. sibiricum: Eskov 1994, p. 93 (corrected spelling).

Material examined: RUSSIA: 1♀ (ZMUT), **Buryatia**, Barguzin Range, Olso River, 54°52'N, 110°55'E, 1700–1800 m, 7.07.1996 (M. Uusitalo). 21♀ (ZMUT & IBPN), **Yakutia**, Kolyma River mouth part, Krai Lesa Vill. (161.20° E, 69.10°N), SW facing slope (25–30°) with steppic type of vegetation, July 1999 (A. V. Alfimov). 3♂ 5♀ (IBPN), **Magadan Area**, Kolyma River upper flow (ca. 62°N), environs of "Aborigen" Field Station, screes in mountain tundra belt, 900–1400 m, Summer 1987 (Y. M. Marusik); 1♀ (ZMUT), Kulu R. upper reaches, "Kontakt" Field Station, 61°51'N, 147°40'E, mountain tundras, 1450 m, 13–18. 07.1997 (S. Koponen). 1♂ (IBPN), **Chukotka**, Anadyr River basin, Balaganchik River mouth, 64°56'N, 168°33'E, 14.06.–29.07.1994 (P. S. Tomkovitch).

Description (based on specimens from upper Kolyma, "Aborigen" Field Station). Both sexes were described by Eskov (1989). Carapace length/femur I ratio in ♂ –1.0. Coxae IV spaced by 1.45 of their diameter. Femur I length/diameter ratio 5.9. Tibia with 1 short macroseta (about 0.75 of tibia diameter in ♀, and 0.35 in ♂) near the base of joint. Its position 0.18 in ♂ and ♀ (Fig. 45). Epigyne as in Figs. 20, 25–27, 38–42, 44, 46, "septum"(arm of median plate) with clearly visible "ducts", plate length/width ratio is about 1.0 in "topotype" females, while optically plate looks longer than wide; plate width/lateral lobes ratio less than 1.3, apical (pale) part without outgrowths. Terminal part of embolic division apophysis varies slightly (cf. Figs. 13–14). Cephalic part of carapace with reduced sulci, high magnification of SEM makes visible some pores concentrated behind posterior eyes (Fig. 43). See also Tables 1–2.

Comments. Population from Kolyma River mouth may belong to a separate species. Females of this population have wider median plate (cf. Figs. 42, 44, 46), and in addition wider flaps, smaller terminal parts of flaps, and slightly different position of TmI (cf. Figs. 45, 47). Lack of males from Kolyma River mouth does not allow us to verify the status of this population.

Habitat. Numerous specimens collected in type locality comes from screes situated in mountain tundra on



Figs. 6–11. Male palp of *Procerocymbium sibiricum* (6–7), *P. jeniseicum* sp. n., holotype (8–10) and *P. dondalei* sp. n., holotype (11) —6 and 8, palpal tibia and cymbial apophysis, prolateral view; 7, palpal tibia and basal part of cymbium, prolateral view; 9–11, different turns of cymbium showing outgrowth. Scale: 0.1 mm.

elevations over 900 m. In Kolyma River mouth this species was collected in rather dry and warm riverside slopes (the warmest habitat in the area, Alfimov, personal communication).

Distribution. Actual range is somewhat unclear because of uncertain status of the populations from Kolyma River mouth and Lena River. So far this species was proven to occur in the upper Kolyma [Aborigen (type locality) and Kontakt Field Stations], Anadyr River middle flow and Buryatia (Map 1).

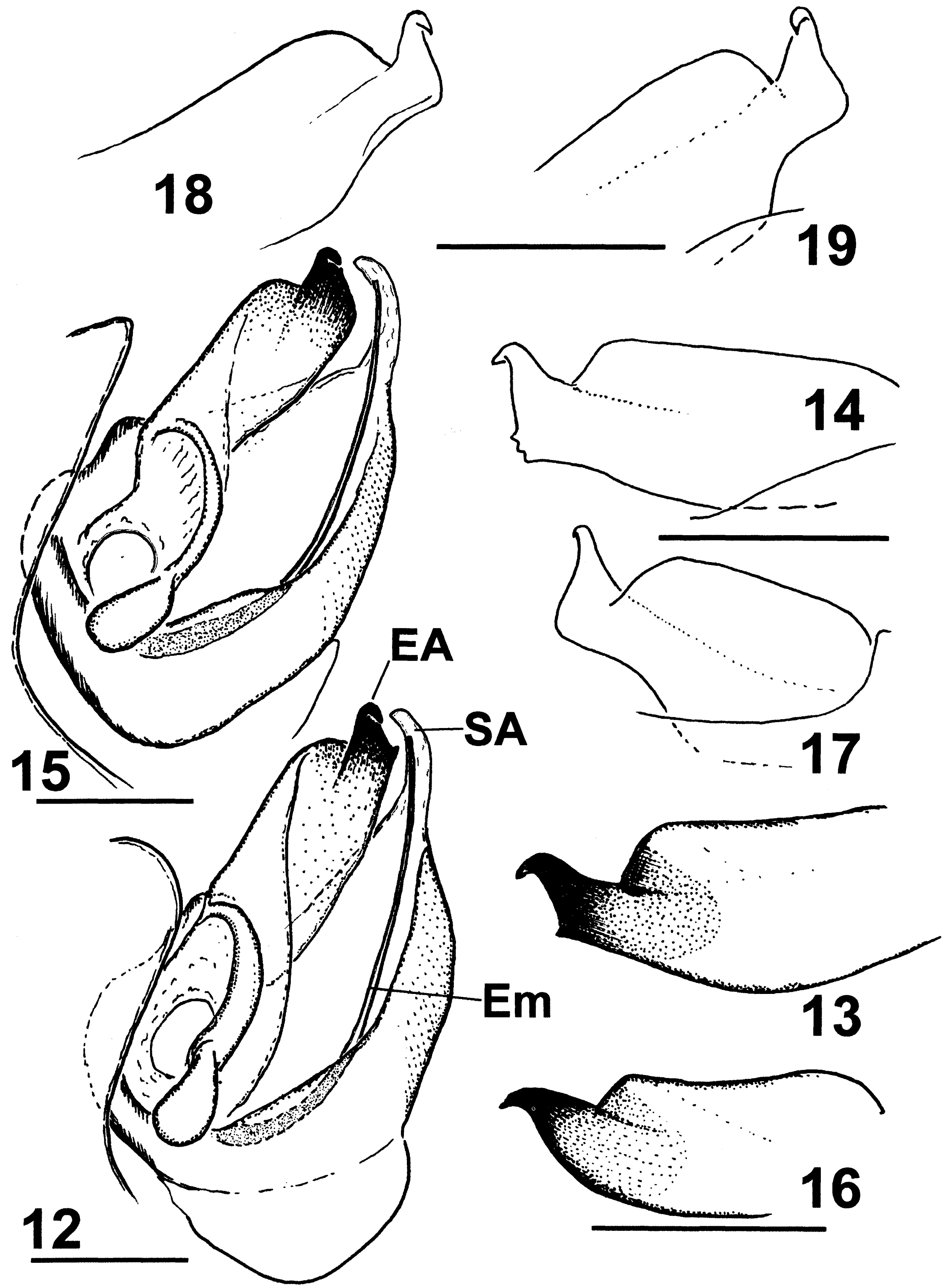
Procerocymbium jeniseicum sp. n.

(Figs. 3–4, 8–10, 15–16, 21–23, 29–31, 54–57)

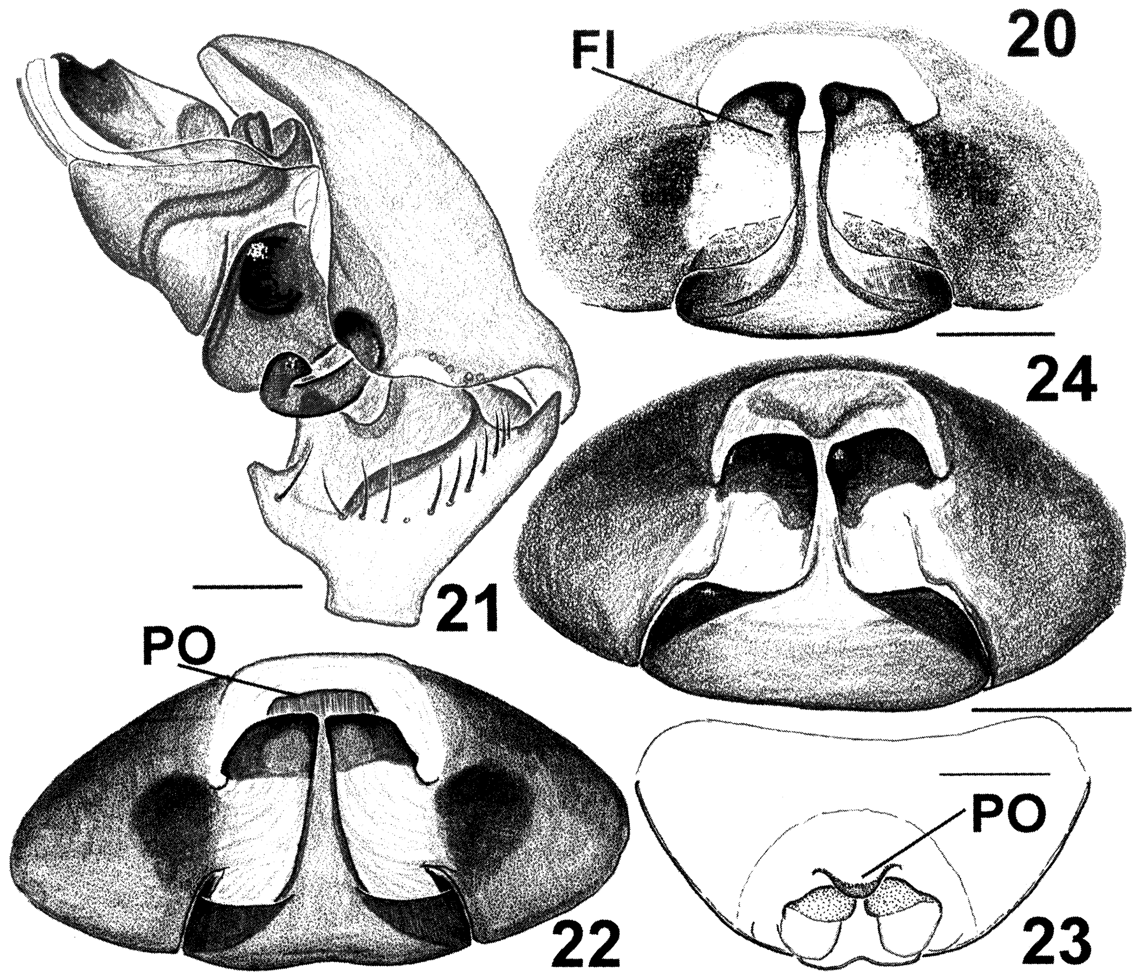
P. sibiricum Eskov 1989, p. 76 (paratypes from Krasnoyarsk Prov.)

Material examined. Holotype ♂ (ZMMU), RUSSIA, **Krasnoyarsk Prov.**, Taimyr Region, lower reaches of Yenisei River, Potapovo Vill., 68°50'N, 86°25'E, August 1995 (L. Rybalov). Paratypes: 8♀[paratypes of *P. sibiricum*] (ZMMU Ta-5232 & ZMUT), Evenkiya, Taimura River, Neptene River mouth, larch forest on riverside wall, in moss, 8.08.1982 (K. Y. Eskov).

Diagnosis. Males of this new species can be easily recognized among congeners by having distinct sulci. From another Siberian species, *P. jeniseicum* males can be distinguished by having less setae (about 10) arranged in one row along prolateral tibial apophysis and by the shape of apophysis of embolic division. Females of this new species can be separated from other congeners by peak-like extension of the anterior part of epigyne, which is closely attached to the anterior ends of



Figs. 12–19. Male palp of *Procerocymbium sibiricum* (12–14), *P. jeniseicum* sp. n. (15–16) and *P. dondalei* sp. n. (17–19). —12 and 15, bulbus, prolateral-anterior view; 13–14 and 16–17, apophysis of embolic division, retrolateral view; 18–19. apophysis of embolic division, prolateral view; 13–14, variation of apophysis of embolic division within "topotype" material. Scale: 0.1 mm. Abbreviations: EA - apophysis of the embolic division, Em - embolus, SA - suprategular apophysis.



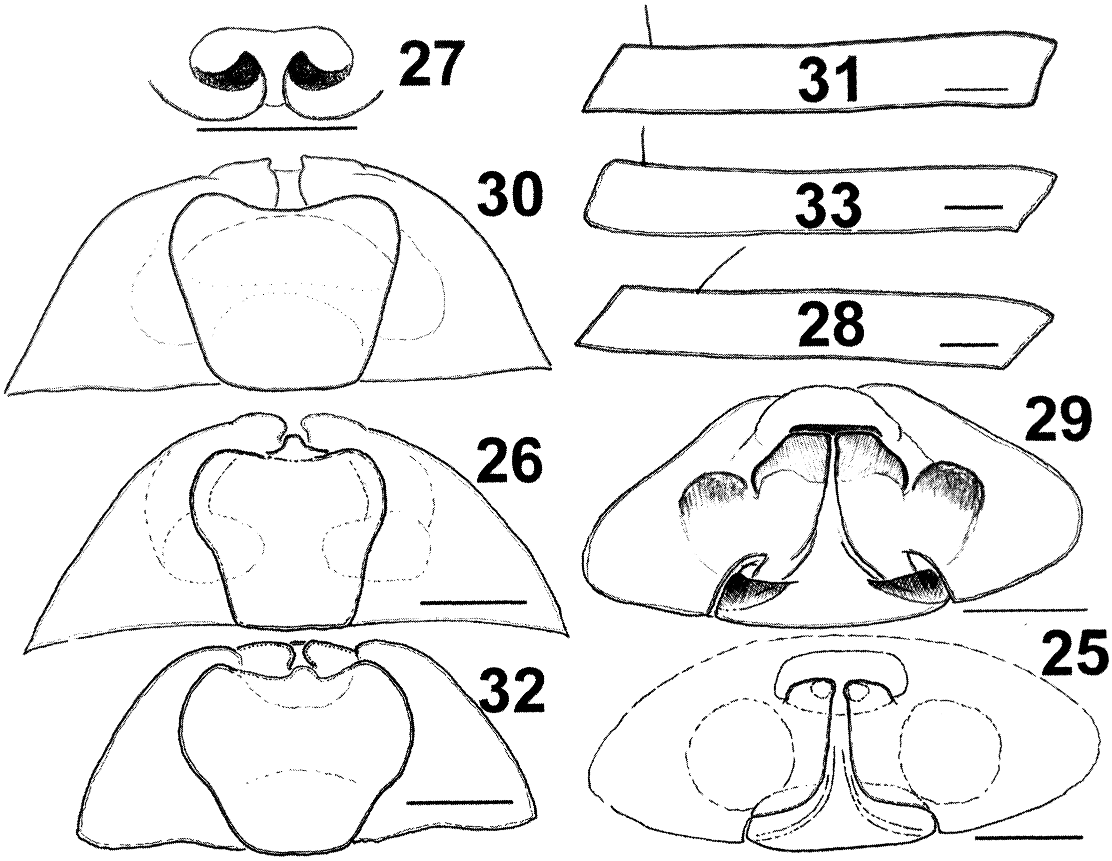
Figs. 20–24. Structures of *Procerocymbium sibiricum* (20), *P. jeniseicum* sp. n. (21–23) and *P. buryaticum* sp. n. (24). —20, 22 and 24, epigyne, ventral view; 21, male palp, retrolateral view; 23, epigyne, anterio-ventral view. 20, specimen from the upper Kolyma; 22–23, paratype specimen from Taimura; 24, holotype. Scale: 0.1 mm. Abbreviations: Fl - flap, PO - peak-like outgrowth.

fissure. See also Tables 1–2.

Description. Male. Total length 2.14. Carapace 0.91 long, 0.86 wide, light brown with grey marginal stripes and indistinct median band behind PME. Cephalic part raised above thoracic one, 0.4 high. Sternum brownish with dark grey margins. Abdomen dark grey. Legs yellow. Tibia with 1 short macroseta (less than a half of tibia diameter) near the base of joint, its position 0.15. Femur I length/diameter ratio 5.5. Coxae IV spaced by 1.45 of their diameter. Carapace length/femur I ratio 1.06. Palp as in Figs. 4, 8–10, 15–16. Apophysis of embolic division with rounded terminal part.

Leg measurements (Fe/Pa/Ti/Mt/Ta)
Leg I: 0.86/0.26/0.77/0.69/0.43
Leg II: 0.84/0.24/0.71/0.69/0.41
Leg III: 0.71/0.24/0.59/0.60/0.34
Leg IV: 0.96/0.26/0.80/0.80/0.44

Female. Total length 2.35–2.90. Carapace 0.80–0.93 long, 0.80–0.93 wide, from light brown to dark-brown with dark grey marginal stripes and median spot. Cephalic part 0.35 high. Sternum dark brown-black. Abdomen from brownish to dark grey-brown. Legs bright yellow. Tibia with 1 short macroseta (about 0.75 times of tibia diameter) near the base of joint. Position of spine slightly less than 0.10. Femur I length/diameter ratio 4.6. Coxae IV spaced by 1.36 of their diameter. Carapace length/femur I ratio 0.91. Epigyne as in Figs. 22–23, 29–30, 54–57, plate looks higher than wide, while height/width ratio 0.88; plate width/lateral lobe ratio about 1.6; apical (pale) part with peak-like



Figs. 25–33. Structures in females of *Procerocymbium sibiricum* (25–28), *P. jeniseicum* sp. n. (29–31) and *P. buryaticum* sp. n. (32–33). —25 and 29, epigyne, ventral view; 26, 30 and 32, epigyne, posterio-ventral view; 27, anterior portion of fissure showing flaps ends; 28, 31 and 33, tibia I. 25–28, specimens from the upper Kolyma; 29–31, paratype specimen from Taimura; 32–33, holotype. Scale: 0.1 mm.

projection covering "pits" and closely separated with them. Peak rather flat.

Leg measurements (Fe/Pa/Ti/Mt/Ta)

Leg I: 0.87/0.29/0.79/0.67/0.43

Leg II: 0.84/0.29/0.76/0.69/0.44

Leg III: 0.76/0.27/0.61/0.61/0.40

Leg IV: 1.03/0.27/0.86/0.81/0.46

Comments. It is possible that the holotype male is not conspecific with paratype females, they were found rather far from each other. We were not able to examine a single female collected in eastern Taimyr and recorded as *P. sibiricum* (cf. Eskov & Marusik 1994), from the same living zone (tundra) as the holotype male.

Distribution. If paratype females are conspecific with holotype male, this new species has Middle Siberian arcto-boreal range (Map 1).

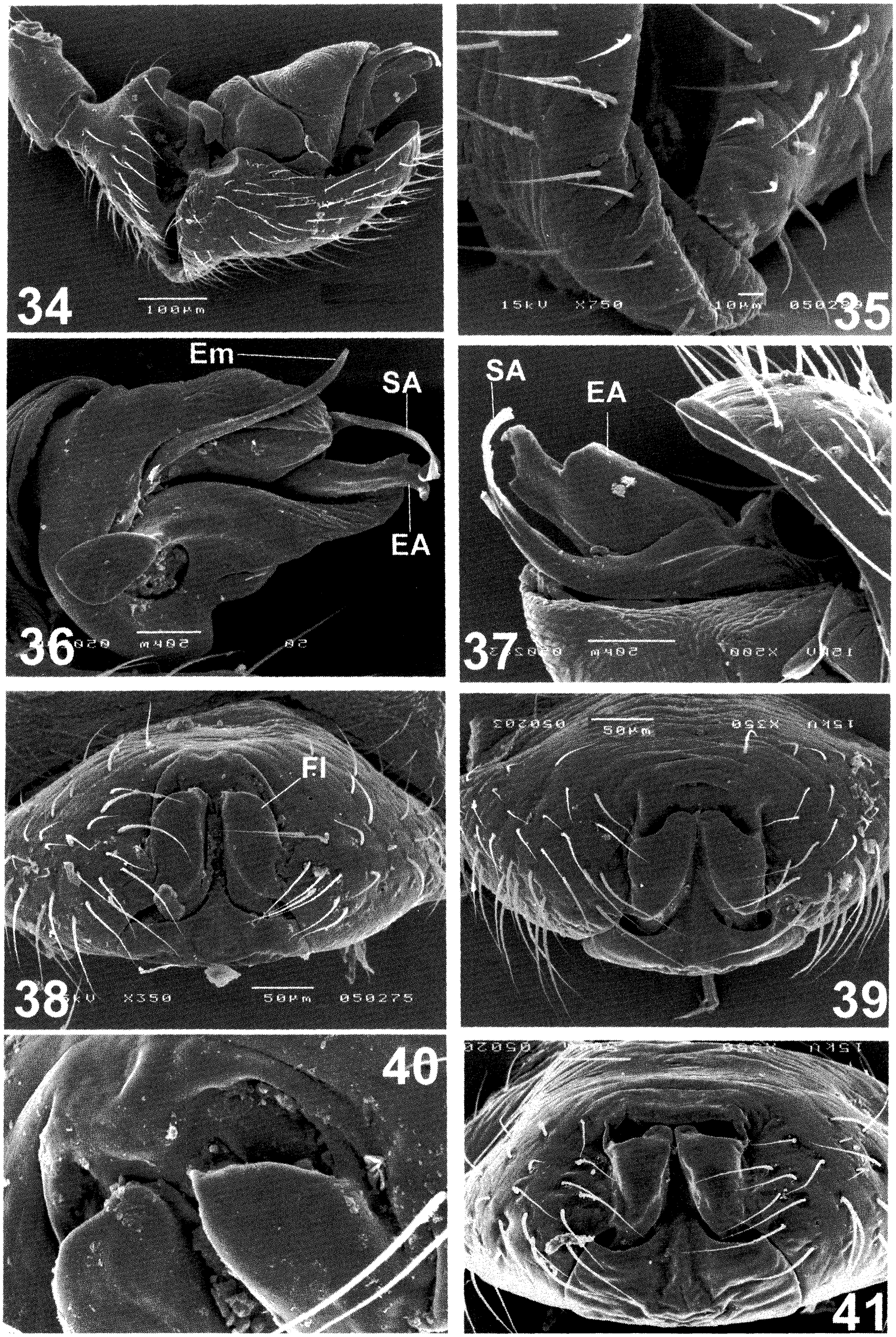
Etymology. The specific epithet refers to the area of distribution of the new species.

Procerocymbium dondalei sp. n.
(Figs. 5, 11, 17–19)

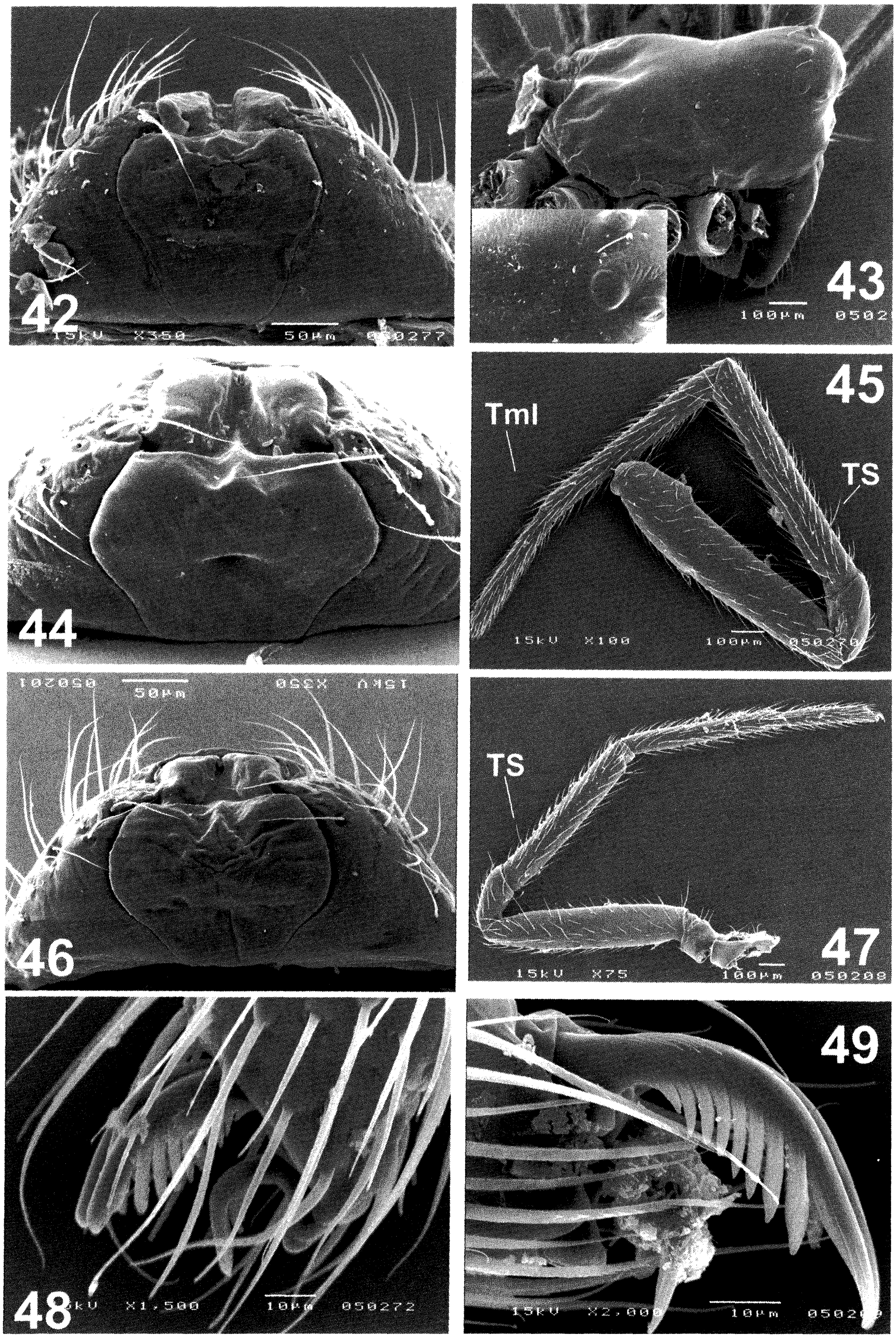
P. sibiricum: Dondale et al. 1997, p. 88.

Material examined. Holotype ♂ (CNC), CANADA, **Yukon Territory**, Eagle River, pitfalls in spruce bog 23.06.–1.07.1981 (C. D. Dondale).

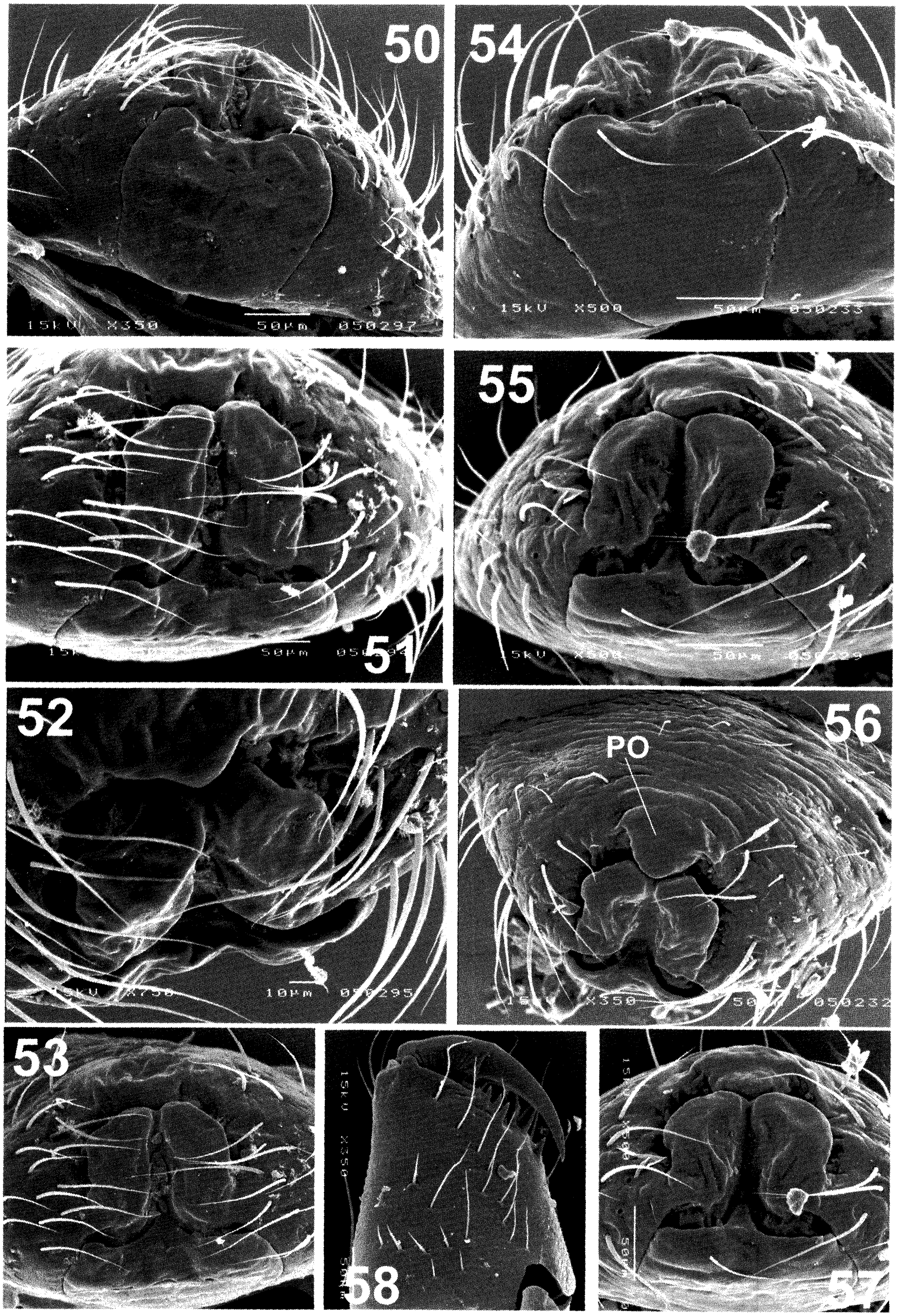
Diagnosis. The new species is similar to congeners but can be separated from other species by smaller size, TmI position, and shape of apical portion of apophysis of embolic division. From *P. jeniseicum* sp.n. the new species can be easily distinguished by lack of sulci at carapace. Palp of *P. dondalei* sp. n. is very similar to that of *P. sibiricum* but can be easily separated as it is smaller (cf. Figs. 2, 4, 6) and by having less setae along retrolateral tibial apophysis (tibial ridge). See also Table 1.



Figs. 34–41. Copulatory organs of *Procerocymbium sibiricum*. —34, palp, retrolateral view; 35, cymbial outgrowth with furrows and part of tibia with denticles; 36, bulbus, prolateral view; 37, apical portion of male palp; 38, epigyne, ventral view; 39 and 41, epigyne, anterior-ventral view; 40, apical portion of fissure. 39 and 41 different females from Cherski, other figures made from the upper Kolyma specimens. Abbreviations: EA - apophysis of the embolic division, Em - embolus, Fl - flap, SA - suprategular apophysis.



Figs. 42–49. Structures of *Procerocymbium sibiricum*. —42, 44 and 46, epigyne, posterio-ventral view; 43, male carapace and area of reduced sulci; 45 and 47, leg I; 48–49, claws of tarsus I. 42–43, 45 and 48, specimens from the upper Kolyma; 44, 46–47 and 49, different females from Cherski. Abbreviations: TmI - trichobothrium of Tibia I, TS - tibial spine.



Figs. 50–58. Epigynes of *Procerocymbium buryaticum* sp. n. (50–53), *P. jeniseicum* sp. n. (54–57) and chelicera of *P. sibiricum* (58). —50 and 54, view from behind; 51 and 55, ventro-lateral view; 52 and 56, anterio-ventral view; 53 and 57, ventral view. 50–53, paratype female from Yakutia, 54–57, paratype female from Taimura; 58, female from Cherski. Abbreviations: PO - peak like outgrowth.

Table 1 Distinguishing table for males of *Procerocymbium* species

Characters	*sibiricum*	*jeniseicum*	*dondalei*
Carapace with sulci	−	+	−
Carapace length	0.8–0.88	0.91	0.73
Tm I	~0.9	~0.9	0.6
Number of setae along retrolateral tibial apophysis	>13	<11	<11
Apophysis of embolic division with rounded (1), spined (2) sharply turned (3) tip	2	1	3
Dweller in bogs (1) or mountain screes and dry places (2)	2	1	1

Table 2 Distinguishing table for females of *Procerocymbium* species

Characters	*sibiricum*	*jeniseicum*	*buryaticum*
Anterior ends of fissure covered with peak	−	+	+
Peak thick (1) or thin and almost fused with fissure ends (2)	−	2	1
Carapace length	0.88–0.98	0.8–0.93	0.95–1.0
Carapace/femur I ratio	0.91	1	1.16
Insemination ducts visible	+	−	−
Position of spine on Tibia I	0.18	0.10	0.10
Length of setae in comparison to tibia diameter	≅	<0.5	~0.75
Pockets of median plate visible	−	+	+
Peak over flaps well developed	−	+	+
Peak thickness	−	flat/thin	thick
Dweller in bogs (1) or mountain screes and dry places (2)	2	1	1

Description. Male. Total length 1.67. Carapace 0.73 long, 0.69 wide, specimen faded. Cephalic part slightly raised above thoracic one, 0.31 high, sulci absent. Abdomen grey. Legs pale yellow. Tibia with 1 short macrosetae (about 1/3 of tibia diameter) near the base of joint, its position 0.14. Femur I length/diameter ratio 5.2. Carapace length/femur I ratio 0.98. Tm-ca. 0.60. Leg measurements (Fe/Pa/Ti/Mt/Ta)

Leg I: 0.74/0.23/0.64/0.60/0.39

Leg II: 0.69/0.23/0.61/0.59/0.37

Leg III: 0.60/0.23/0.50/0.54/0.36

Leg IV: 0.81/0.24/0.71/0.71/0.37

Palp as in Figs. 5, 11, 17–19. Apophysis of embolic division sharply turned in terminal part and has no denticles, tibial ridge assembled with one row of 10 setae.

Distribution. Type locality only (Map 1).

Etymology. This species is named after our friend and colleague Charles D. Dondale (CNC) who collected the holotype.

Procerocymbium buryaticum sp. n.
(Figs. 24, 32–33, 50–53)

Procerocymbium sibiricum: Koponen & Marusik 1992, p. 166; Marusik et al. 2001, p. 91.

Material examined. Holotype ♀ (ZMMU), RUSSIA, **Buryatia**, Dzhirginski Reserve, Dzhirga Kordon (54°55'N, 111°14'E), ca. 600 m, 13.08.1995 (S. Rudykh). Paratypes: 1♀ (ZMUT), **Yakutia** (#05), Oktemtsy, 61°30'N, 129°30'E, moist taiga, ground, 8.07.1977 (S. Koponen); 1♀ (IBPN) M. Toko Lake, 56.189°N, 131.000°E, lake shore, 25.07.1990 (N. N. Vinokurov).

Diagnosis. It can be separated from the type species of the genus, *P. sibiricus* Eskov by wider flaps, presence of thick peak-like outgrowth above flaps ends and by position and length of tibia I spine. From *P. jeniseicum* sp. n., this species can be distinguished by thicker peak-like outgrowth. See also Table 2.

Description. Female. Total length 2.21. Carapace 1.00 long, 0.94 wide, grey-brown with dark grey marginal stripes and median spot. Cephalic part 0.31 high. Sternum dark brown-black. Abdomen dark grey. Legs bright yellow. Tibia with 1 short macrosetae (about 0.55 of tibia diameter) near the base of joint. Position of spine slightly less than 0.10. Femur I length/diameter ratio 4.3. Coxae IV spaced by 1.13 of their diameter. Carapace length/femur I ratio 1.16. Abdomen dark grey, with brownish spinnerets. Epigyne as in Figs. 24, 32, 50–53, plate distinctly wider than long in holotype (Fig.

32), while subequal in paratype (Fig. 50). Apical part of epigyne with thick peak. Median plate width/lateral lobes ratio more than 1.5; apical (pale) part with projection directed to "pits". Male unknown.

Leg measurements (Fe/Pa/Ti/Mt/Ta)

Leg I: 0.86/0.29/0.74/0.71/0.46

Leg II: 0.85/0.29/0.73/0.71/0.45

Leg III: 0.79/0.31/0.60/0.66/0.39

Leg IV: 1.04/0.31/0.86/0.86/0.47

Distribution. North Transbaikalia and south-central Yakutia (Map 1).

Etymology. The specific epithet refers to the type locality of the new species.

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Acta Arachnologica Vol. 50, No. 2 掲載論文の和文要旨

タニマノドヨウグモの放置網に侵入する造網性クモ類の侵入頻度の季節的変化（pp. 117–122）

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クモ網への造網性クモ類の侵入に関与する諸要因を明らかにするために，タニマノドヨウグモが放置した網へ侵入する造網性クモ類の頻度の季節的変化を調べた．関与する要因として，ホスト網のサイズと密度，侵入種の生活史と密度が調べられた．侵入者はおもに，タニマノドヨウグモの仔グモとさまざまなサイズのアシナガグモであった．網あたりの侵入者数の平均は，侵入種の密度が低くホスト網の密度が高いために，4月から6月までは低かった．これに対して7月から9月上旬にかけては，侵入者は非常に多かった．これは，ホスト網の密度が低いことと，7月に生まれたタニマノドヨウグモの仔グモの出現によると思われる．このように，侵入頻度は一義的には，ホスト網の密度と侵入種の密度に依存していると思われる．

中国のアシダカグモ科 1. 新シノニムと転属，タイプ指定つき，既知種のリスト（pp. 123–134）

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中国のアシダカグモ科の最初の分類学的改訂として，これまでに中国から記録されている3亜科8属51種のリストを掲げた．個々の種の詳細なタイプ標本のデータ，既知分布を示した．次の種について転属をおこなった：*Olios menghaiensis*（Wang 1990）, *Olios tiantongensis*（Zhang & Kim 1996）, *Pseudopoda bibulba*（Xu & Yin 2000）*Sinopoda dayong*（Bao, Yin & Yan 2000（以上旧 *Heteropoda*）, *Olios nanningensis*（Hu & Ru 1988）（旧 *Micrommata*）, *Pseudopoda marsupia*（Wang 1991）（旧 *Sinopoda*）．次の種は新規にシノニムと認められた：*Heteropoda guangdongensis* Yin, Yan & Kim 2000 は *Olios nanningensis*（Hu & Ru 1988）の，*Micrommata hainanensis* He & Hu 2000 は *Olios nanningensis*（Hu & Ru 1988）の，*Heteropoda shimen* Yin, Peng, Yan & Bao 2000 は *Heteropoda venatoria*（Linnaeus 1767）の，*Thelcticopis jiulongensis* Zhang & Kim 1996 は *Thelcticopis severa*（L. Koch 1875）のそれぞれジュニアシノニム．次の種のシンタイプ，レクトタイプ，パラレクトタイプを指定した：*Pseudopoda exiguoides*（Song & Zhu 1999), *Sinopoda pengi* Song & Zhu 1999, *Sinopoda wangi* Song & Zhu 1999. また *Heteropoda zhangi* Song & Zhu 1999 は無効学名である．（和訳：編集委員会）

旧北区東部からのメキリグモ属（ワシグモ科）の1新種と他の数種の新記録（pp. 135–144）

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ワシグモ科メキリグモ属 *Gnaphosa* の *borea* 種群に属する1新種 *G. banini* をモンゴルから記載するとともに，本種群（*G. borea* Kulczyński 1908, *G. chola* Ovtsharenko & Marusik 1988, *G. microps* Holm 1939, *G. oritis* Chamberlin 1922, *G. banini*）の雄の識別形質を示した．*G. ilika* Ovtsharenko et al. 1922, *G. pseudoleporiona* Ovtsharenko et al. 1992 の雄を図示した．また，旧北区東部からの他の *Gnaphosa* 属9種の生物地理学的に興味のもたれる記録を掲げた．（和訳：編集委員会）

全北区系のクモの1属 *Procerocymbium* Eskov 1989（サラグモ科）の改訂（pp. 145–156）

Yuri M. Marusik[1] & Seppo Koponen[2]（[1]IBPN RAS, Russia; [2]Zoological Museum, University of Turku, Finland）

サラグモ科 *Procerocymbium* Eskov 1989 とその基準種 *P. sibiricum* Eskov 1989 を再記載し，3新種 *P. jeniseicum*（中部シベリア），*P. buryaticum*（トランスバイカルと南ヤクーチア），*P. dondalei*（ユーコン地方）を記載した．本属の他の属との関係についても論議した．（和訳：編集委員会）

日本産ヒメグモ亜科（クモ目：ヒメグモ科）の属および種の検討（pp. 157–181）

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日本産のヒメグモ亜科 Theridiinae Sundevall 1833 の属および種の検討をおこなった．ヒメグモ亜科は雄触肢の杯葉内側に頭巾状の小杯葉があることが特徴で，ほとんどの属に間疣がない．Monetinae Simon 1894 お